AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for thermally affecting brain tissue, comprising:

an implantable member having an outer surface configurable to contact target brain tissue;

at least one fluid-tight lumen defined by the implantable member, the fluid-tight lumen being in thermal communication with the outer surface of the implantable member and being configured to receive a thermally transmissive cooling fluid to thereby impart a thermal change to the outer surface of the implantable member; ~~and~~

a first temperature sensing element that is effective to measure the temperature of the target tissue[[,]]; and

a pressure measurement element having a first end positioned in proximity to the implantable member and effective to measure the pressure at which the implantable member is applied to the target tissue,

whereby the implantable member is adapted for thermally transmissive contact with epidural brain tissue.

2. (Previously Presented) The apparatus of claim 1, wherein the thermally transmissive cooling fluid is selected from the group consisting of liquid, gas and a combination thereof.

3. (Original) The apparatus of claim 1, wherein the implantable member has a shape selected from the group consisting of substantially circular, substantially elliptical, substantially oval, substantially square, substantially trapezoidal and substantially rhomboid.

4. (Original) The apparatus of claim 3, wherein at least a portion of the implantable member is looped around itself to approximately resemble a coil shape.

5. (Previously Presented) The apparatus of claim 1, wherein the implantable member is formed from a flexible, thermally conductive, biocompatible material.

6. (Original) The apparatus of claim 5, wherein the implantable member is formed from a silicone elastomer.

7. Canceled

8. (Original) The apparatus of claim 1, wherein the implantable member is adapted for direct thermally transmissive contact with subdural brain tissue.

9. (Original) The apparatus of claim 1, further comprising:

a backing member attached to the implantable member such that the backing member is in thermal contact with the tissue.

10. (Original) The apparatus of claim 9, wherein the backing member is made of a thermally transmissive material, the thermally transmissive material being resistant to adherence to the tissue.

11. (Original) The apparatus of claim 10, wherein the backing member is made of silicone.

12. (Previously Presented) The apparatus of claim 1, further comprising:
a second temperature measurement element positioned within the lumen and effective to measure the temperature of any fluid within the lumen.

13. Canceled

14. Canceled

15. Canceled

16. Canceled

17. (Currently Amended) The apparatus of claim 1 ~~15~~, wherein the pressure indication element is in communication with a warning indicator such that the warning indicator is effective to produce a signal upon the measurement of a predetermined pressure level by the pressure measurement element.

18. (Original) The apparatus of claim 17, wherein the signal is selected from the group consisting of a visual signal, an audio signal, and a combination thereof.

19. (Original) The apparatus of claim 1, wherein the implantable member is constructed of a shape memory material.

46. (Previously Presented) The apparatus of claim 1, wherein the first temperature sensing element is positioned on a tissue-contacting portion of the implantable member.

47. (Previously Presented) The apparatus of claim 9, wherein the first temperature sensing element is positioned on the backing member.

48. Canceled

49. Canceled